

REMARKS

Status of the Claims

- Claims 12-14, 18, 20, and 22-26 are pending in the Application after entry of this amendment.
- Claims 23-33 are rejected by Examiner.
- Claims 12-14, 18, 20, and 22-24 are amended by Applicant.
- Claims 15-17, 19, and 21 are cancelled without prejudice or disclaimer.

Claim Objections

Claim 12 is objected to under 27 CFR 1.75 as having informalities concerning the terms “the duration,” the duration information” and “a time duration”.

Claim 12 is amended to use the term “time duration” with proper antecedent basis. Applicant respectfully requests reconsideration and withdrawal of the objection to amended Claim 12.

Claim Rejections Pursuant to 35 U.S.C. §112

Claim 12 stands rejected under 35 U.S.C. § 112 second paragraph as being indefinite for lacking antecedent basis on the term “the distributed inter-frame space interval”.

Claim 12 is amended to delete the term “distributed inter-frame space interval”. Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 112 rejection of Claim 12 in light of the amendment.

Claim Rejections Pursuant to 35 U.S.C. §102

Claims 12-15, 18-19, and 22-26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2002/0071448 to Cervello et al. (Cervello), Applicant respectfully traverses the rejection.

Claim 12 is amended to include the aspects that the invention operates to transmit a plurality of multicast frames in an uninterrupted manner in an

infrastructure basic service set network using a time duration that is communicated to the plurality of wireless stations. This amendment is supported in the as-filed specification on page 1, lines 32-35, page 4, lines 23-26, page 7, lines 19-25, and elsewhere throughout the specification.

Claims 13, 18, and 22-24 are likewise amended with similar elements. Apparatus Claims 18 and 23 are also amended to include aspects of Figures 1 and 2 and their respective descriptions. Claim 14 is amended to include the aspect of the time duration in a header of a data packet as described in the text of Figure 5.

Cervello discusses collision avoidance in an IEEE802.11 contention free period (CFP) with overlapping Basic Service Sets. Cervello introduces a second network allocation vector (NAV) counter called an Overlapping Network Allocation Vector (ONAV) counter as an integral part of a scheme to reduce contention in the specific situation where there are overlapping basic service sets. As indicated in Cervello, paragraph 0022:

“It is yet another object of the present invention to define a new counter called Overlapping Network Allocation Vector (ONAV) to render the RTS/CTS during CFP truly effective even in the existence of the STAs in CFP in the case of overlapping BSSs.” (Cervello, paragraph 0022).

Cervello makes clear that the contention reduction scheme discussed is used in the context of two overlapping BSSs in paragraph 0023:

“It is still yet another aspect of the invention to provide a hybrid wireless MAC protocol for isochronous traffic support which uses a novel Ready To Send(RTS)/Clear To Send(CTS) exchange during a contention free period (CFP) in order to avoid contention from Stations (STAs) in overlapping BSSs, combined with a new counter called Overlapping Network Allocation Vector (ONAV) to render the RTS/CTS during CFP truly effective even in the existence of the STAs in CFP in the case of overlapping BSSs...” (Cervello, paragraph 0023).

Cervello teaches using both the NAV counter and the new ONAV counter as part of the solution to reduce contention in a multiple BSS environment. See Cervello, paragraph 0041.

Applicant notes that Cervello is absent any teaching of a multicast environment where a plurality of multicast frames are sent to multiple stations in an uninterrupted manner.

Thus, while Cervello addresses contention in the situation of multiple BSSs where a NAV and a new ONAV counter are used, the presently claimed invention operates in a single BSS environment to reduce contention in a multicast environment where only one NAV counter is used. Applicant notes that the pending claims do not contain an ONAV counter and multiple BSSs as is required by Cervello.

Accordingly, Cervello fails to disclose elements of an infrastructure basic service set, a plurality of multicast frames sent to a plurality of wireless stations, and an uninterrupted time duration for sending the multicast frames as indicated in amended pending independent Claims 12, 13, 18, and 23.

Since Cervello fails to disclose all of the elements of the amended pending claims, then Cervello cannot anticipate the pending claims under 35 USC §102(e) per MPEP §2131. Thus, the amended pending claims patentably define over the cited art.

Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 102(e) rejection of Claims 12-15, 18-19, and 22-26 because all of the elements of the pending claims are not found in the cited art.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 16, 17, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0071448 to Cervello et al. (Cervello) in view of U.S. Patent No. 7,251,232 to Meir. Applicant respectfully traverses the rejection.

Claims 16 and 17 are cancelled.

The teachings of Cervello are discussed above. Meir discusses a method for managing prioritized channel access. In Meir, prioritized channel access is required for parameterised and prioritized stations. "Parameterised stations" are QoS stations with flows that require guaranteed bandwidth and bounded delays. Such QoS stations will use a signaling protocol to request a constant service rate. Prioritized stations are QoS stations that transmit frames with a priority higher than "best effort", without using a signaling protocol to set delay and

bandwidth parameters. The method of Meir contemplates utilizing an AP channel access arbitrator that monitors the service rate for "parameterised QoS stations" and initiates unscheduled Point-controlled Contention-free Burst ("P-CFB) polling, as required, during the contention period, to sustain a constant service rate for such QoS stations. (See Meir, col. 8, line 55 to col. 9, line 3).

However, Meir, like Cervello, also fails to disclose the aspects of a single BSS, used for multicast transmissions, via the use of a time duration in a counter, to achieve control of a communications medium as recited in amended Claim 18 upon which Claim 20 depends.

Applicant respectfully submits that one of skill in the art would not be motivated to combine Cervello and Meir because their combination fails to disclose all of the elements of the pending claims. Since Claim 20 depends on patentably distinct Claim 18, then dependent Claim 20 is likewise patentably distinct over the combined cited art per MPEP §2143.03.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. §103 rejection of pending Claim 20.

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0071448 to Cervello et al. (Cervello) in view of U.S. Patent Publication No. 2002/0061031 to Sugar et al. (Sugar). Applicant respectfully traverses the rejection.

The teachings of Cervello are discussed above. Sugar discusses a system and method that provide interference mitigation algorithms which allow for the operation of multiple wireless communication protocols in a common frequency band, particularly an unlicensed frequency band allocated for short-range wireless communication. In Sugar, system and method have utility in WLANs where there is possible overlap in frequency and time of signals transmitted in a common frequency band. (See Sugar, paragraph 0007).

However, Sugar, like Cervello, also fails to disclose the aspects of a single BSS, used for multicast transmissions, via the use of a time duration in a counter, to achieve an uninterrupted stream of multicast frames as recited in amended Claim 12 upon which Claim 21 depends.

Applicant respectfully submits that one of skill in the art would not be motivated to combine Cervello and Sugar because their combination fails to

disclose all of the elements of the pending claims. Since Claim 21 depends on patentably distinct Claim 12, then dependent Claim 21 is likewise patentably distinct over the combined cited art per MPEP §2143.03.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. §103 rejection of pending Claim 21.

Conclusion

Applicant respectfully submits that the amended pending claims patentably define over the cited art and respectfully requests reconsideration and withdrawal of all rejections of the pending claims based on the amendments and arguments above.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefore.

Respectfully submitted,

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Date: June 3, 2009

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